Claims

1. A playback apparatus for playing back a digital stream generated by multiplexing a graphics stream and a video stream,

5   comprising:

a decoding unit operable to decode the graphics stream, and overlay a page including a plurality of graphics button members on a moving picture obtained by decoding the video stream;

10   an execution unit operable to, when a selection of one of the plurality of button members is confirmed, execute a command corresponding to the button member, to thereby perform a first control of switching the page to another page and a second control of specifying a button member to be focused

15   in the other page;

a status register operable to hold a button number of the specified button member;

a judgment unit operable to judge whether the button number in the status register is invalid; and

20   a setting unit operable to, if the button number in the status register is judged as being invalid, set the status register to an alternative button number.

2. The playback apparatus of Claim 1, wherein:

25   the graphics stream includes interactive control information that contains a plurality of sets of page information corresponding one-to-one to a plurality of pages, the plurality of sets of page information each showing button

numbers of all button members included in a corresponding page, and

the judgment unit checks whether the button number in the status register is not shown in a set of page information corresponding to the other page, and judges the button number as being invalid if the button number is not shown in the set of page information.

3. The playback apparatus of Claim 2, wherein:

the plurality of sets of page information each include default select information indicating whether, upon switching to the corresponding page, a button member to be focused as default is to be determined statically or dynamically;

the playback apparatus further comprises

an overwrite unit operable to, if default select information in the set of page information corresponding to the other page indicates the static determination, overwrite the status register with a value based on the default selection information in the set of page information; and

the button number in the status register is maintained if the default select information in the set of page information indicates the dynamic determination.

4. The playback apparatus of Claim 2, wherein:

the interactive control information further contains first time information;

when playback of the video stream has reached a time shown by the first time information, the decoding unit overlays

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a page corresponding to a beginning one of the plurality of sets of page information in the interactive control information, on the moving picture; and

the judgment unit also performs the judgment when the playback of the video stream has reached the time shown by the first time information.

5. The playback apparatus of Claim 4, wherein:

the interactive control information further contains second time information; and

the setting unit sets the status register to be invalid, when the playback of the video stream has reached a time shown by the second time information.

6. The playback apparatus of Claim 4, further comprising

an initialization unit operable to, when a recording medium is loaded to the playback apparatus, initialize the status register to an invalid value, wherein:

the judgment unit judges that the value in the status register is invalid, when the playback of the video stream has reached the time shown by the first time information; and

the setting unit also performs the setting when the playback of the video stream has reached the time shown by the first time information.

7. A computer-readable program used for enabling a computer to play back a digital stream generated by

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multiplexing a graphics stream and a video stream, the computer including a status register, the program enabling the computer to perform the steps of:

decoding the graphics stream, and overlaying a page including a plurality of graphics button members on a moving picture obtained by decoding the video stream;

executing, when a selection of one of the plurality of button members is confirmed, a command corresponding to the button member, to thereby perform a first control of switching the page to another page and a second control of specifying a button member to be focused in the other page;

storing a button number of the specified button member to the status register;

judging whether the button number in the status register is invalid; and

setting, if the button number in the status register is judged as being invalid, the status register to an alternative button number.

8. A playback method for use in a playback apparatus, for playing back a digital stream generated by multiplexing a graphics stream and a video stream, the playback apparatus including a status register, the playback method comprising the steps of:

decoding the graphics stream, and overlaying a page including a plurality of graphics button members on a moving picture obtained by decoding the video stream;

executing, when a selection of one of the plurality of

button members is confirmed, a command corresponding to the button member, to thereby perform a first control of switching the page to another page and a second control of specifying a button member to be focused in the other page;

5   storing a button number of the specified button member to the status register;

judging whether the button number in the status register is invalid; and

setting, if the button number in the status register

10   is judged as being invalid, the status register to an alternative button number.